

REMARKS

The Office rejects claims 1-4 in the subject application. Applicant amends claims 1-4 and adds new claims 5-9. It is submitted that the amendments made to claims 1-4 are for providing improved clarity and for ensuring that the claims are not interpreted as means-plus-function claims under 35 U.S.C. §112, sixth paragraph. It is further submitted that the amendments to claims 1-4 are not made for reasons related to patentability. Claims 1-9 (2 independent claims; 9 total claims) remain pending in the application.

Support for the various amendments may be found in the originally filed specification, claims, and figures. No new matter has been introduced by these amendments. Reconsideration of this application is respectfully requested.

35 U.S.C. § 103 REJECTIONS

The Examiner rejects claims 1-4 under 35 U.S.C. §103(a) as allegedly being unpatentable over Angelo.¹ Applicant respectfully traverses the rejection.

The Applicants would like to thank Examiner Ponnoreay Pich for conducting a personal interview with the Applicants' representatives on July 7, 2005 at the United States Patent and Trademark Office. The Applicants' representatives presented arguments traversing Examiner Tracey Akpati's prior art rejection and distinguishing the claims over the Angelo prior art reference. As reflected in the Interview Summary (form PTOL-413), Examiner Pich felt that the arguments presented during the personal interview were really good and he indicated that he would further consider the previous Examiner's rejection upon the filing of an RCE and these arguments. Provided next is a Substance of the Examiner Interview including the arguments, which were presented for clearly distinguishing the presently claimed invention over the Angelo reference.

The Applicants respectfully traverse the Examiner's aforementioned prior art rejection and submit that the present invention, at least as claimed in each of independent claims 1 and 6, clearly patentably distinguishes over the Angelo reference for at least the following reasons.

One exemplary object of the present invention is to prevent compromising the security of an encryption/decryption device when the device is fraudulently operated without providing a content-key [see pages 3-5 of specification]. By fraudulently operating the device, it is possible

¹ U.S. Patent No. 5,923,754, issued July 13, 1999 to Compaq Computer Corporation.

to encrypt and decrypt content using an initial content key. Particularly, when the device receives a command to encrypt content or decrypt encrypted content without receiving a content-key, the device erroneously recognizes a value of the memory region, referred to as "initial content key", as the content-key [see page 3 (lines 17-29) of specification]. By fraudulently operating the device in such a manner, it is then possible to decipher the initial content-key and an algorithm used for decryption processing [see page 4 (lines 18-25) of specification].

One exemplary advantage of the present invention is that it is able to prevent the aforementioned security problem by determining whether or not a value of a content-key storage section in its initial state and a current value of the content-key storage section are different, and performing decryption of encrypted content when it is determined that the value of the content-key storage section in its initial state and the current value of the content-key storage section are different.

The Applicants strongly submit that the Angelo reference fails to disclose or suggest determining "whether or not a value of the content-key storage section in its initial state and a current value of the content-key storage section are different", and performing decryption of encrypted content when it is determined that the value of the content-key storage section in its initial state and the current value of the content-key storage section are different, as particularly recited in each of independent claims 1 and 6 of the present application.

It is initially noted that Examiner Akpati provides contradictory statements in the Office Action. Particularly, the Examiner initially asserts, in lines 3-5 of paragraph 1 on page 3 of the Office Action, that the Angelo reference allegedly teaches the feature of the determination section in column 4 (lines 3-16). However, the Examiner then asserts, in lines 1-4 of paragraph 2 on page 3 of the Office Action, that it would have been obvious to one of ordinary skill in the art at the time of the invention to have a determination section because the phase lock loop circuit of column 4 (lines 5-16) ensure that two values are unique. The Examiner further states that "A random value drive Key Dk is generated every time the DVD system is powered on. Hence the phase lock look circuit performs the job of the determining section." These conflicting and contradictory positions taken by the Examiner are confusing and unclear.

Nonetheless, the Applicants strongly submit that neither the portions relied upon by the Examiner, nor any other portions of the Angelo reference disclose or suggest the aforementioned

features which are particularly recited in each of independent claims 1 and 6 of the present application.

The Angelo reference in column 4 (lines 3-16) merely describes the generation of a drive key Dk by DVD drive 12. The drive key Dk is simply a combination of a disk key stored on a media, and a uniqueness factor derived from the PLL of the DVD drive [see column 4 (lines 5-7)]. Moreover, the PLL range is used to merely generate a unique or random drive key every time the system is powered on [see column 4 (lines 10-16)]. This drive key Dk is then sent from the DVD drive 12 to the video controller 18, and the video controller 18 sends a video key Vk to the DVD drive 12 so as to define a device key which is the product of $VkDk$ [see column 4 (lines 17-34)]. Subsequently, this device key is used by the DVD drive 12 and the video controller 18 to encrypt and decrypt, respectively, a disk/media key dk which is used to encrypt and decrypt content [see column 4 (lines 57-66)].

Accordingly, the Applicants submit that there is no disclosure or teaching in column 4 or any other portion of the Angelo reference for determining “whether or not a value of the content-key storage section in its initial state and a current value of the content-key storage section are different”, and for performing decryption of encrypted content when it is determined that the value of the content-key storage section in its initial state and the current value of the content-key storage section are different, as particularly recited in each of independent claims 1 and 6 of the present application.

Moreover, the Applicants emphasize that Examiner Akpati’s obviousness assertion that the PLL of the Angelo reference performs the function of the determination section is clearly incorrect and improper since the PLL is merely used for generating the unique or random drive key Dk [see column 4 (lines 10-16)]. It is submitted that the mere disclosure of this PLL is not equivalent to, or even suggests, performing a determination of whether or not a value of the content-key storage section in its initial state and a current value of the content-key storage section are different, and performing decryption of encrypted content when it is determined that the value of the content-key storage section in its initial state and the current value of the content-key storage section are different, as particularly recited in each of independent claims 1 and 6 of the present application.

The Applicants submit that the Angelo reference relied up by Examiner Akpati fails to disclose or suggest each of the features positively recited in independent claims 1 and 6 of the present application.


In view of the foregoing, it is submitted that the present invention as claimed in each of independent claims 1 and 6, as well as claims 2-5 and 7-9 dependent thereon, are clearly allowable and the Examiner is kindly requested to now promptly pass this case to allowance.

CONCLUSION

Applicant respectfully submits that the present application is in condition for allowance. Reconsideration of the application is thus requested. Applicant invites the Office to telephone the undersigned if he or she has any questions whatsoever regarding this Response or the present application in general.

Respectfully submitted,

Date: 7-27-05

By: 
Shahpar Shahpar
U.S. Reg. No. 45,875

SNELL & WILMER L.L.P.
One Arizona Center
400 East Van Buren
Phoenix, Arizona 85004-2202
Phone: (602) 382-6306
Fax: (602) 382-6070
Email: sshahpar@swlaw.com